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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jae-Hong Kim

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05/27/2005

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EXAMINER

FAN, CHIEH M

ART UNIT

PAPER NUMBER

2634

DATE MAILED: 05/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/897,732

Applicant(s)

KIM ET AL.

Examiner

Chieh M. Fan

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 3 is objected to because of the following informalities: "the 5 input data" in line 3 should be changed to --- the input data which has not been decoded by the preliminary decoding part ---. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 6-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, the limitations "a frame length indicating parameter" recited in lines 1-2 of the sub-step (a41) and "a frame length parameter" recited in lines 2-3 of the sub-step (a41) have exactly the same purpose (i.e., indicating the possible frame length). It is not clear how to distinguish the difference between the two limitations.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Nara (EP 0817440, listed in the IDS filed 4/16/04).

Regarding claim 1, Nara teaches an apparatus for decoding data of unknown frame length, comprising:

a preliminary decoding part for decoding input data into preliminarily decoded data according to each of the possible frame lengths (102 in Fig. 4; also see step (a) in claim 1, note that different data rate corresponds to different frame length, see Fig. 1); and

a decoded data outputting part for selectively outputting data that correspond to a frame length detected from the input data which has not been decoded by the preliminary decoding part, from among the preliminarily decoded data which are decoded by the preliminary decoding part according to each of the possible frame lengths (108, 105 in Fig. 4, note that 108 receives the input data which has not been decoded by the preliminary decoding part; steps (b)-(d) in claim 1, page 7, lines 23-25).

Regarding claim 4, claim 4 is the corresponding method claim of claim 1 and is therefore rejected for the same reason above.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nara (EP 0817440, listed in the IDS filed 4/16/04) in view of the admitted prior art.

Regarding claim 2, Nara teaches the claimed invention as applied to claim 1 above including using a Viterbi decoding means in the claimed preliminary decoding part (102 in Fig. 4), but does not particularly show the viterbi decoder includes a branch metrics calculating part, an ACS (Adding, Calculating & Selecting) part, a path metrics storing part, a tracebacks data storing part, and a traceback controlling part.

However, it is well known that all five parts are essential parts to construct a viterbi decoding means. The admitted prior art described in the background section (pages 1 and 2 of the specification) and Fig. 1 (see elements 210, 230, 250, 270 and 290) of the present application shows all five parts. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to construct the viterbi decoding means of Nara as claimed, since all five parts are essential elements and explicitly required for a viterbi decoder. Note that the traceback

controlling part would inherently control the tracebacked storing part according to each of the possible frame lengths since the viterbi decoder in the system of Nara decodes the data for each possible frame length.

Regarding claim 3, Nara further teaches that the decoded data outputting part comprises:

a frame length determining part for detecting the frame length based on the input data which has not been decoded by the preliminary decoding part (104, 105, 106, 107, 108 in Fig. 4; page 7, lines 3-19);

an output storing part for storing the preliminarily decoded data output from the tracebacked data storing part (105 in Fig. 4, 105 receives the decoded signals 125-128 from the viterbi decoder 102; also see page 7, line 24); and

an output controlling part for controlling the output storing part so as to output decoded data corresponding to the detected frame length (105 in Fig. 4; page 7, lines 24-25).

Regarding claim 5, claim 5 is the corresponding method claim of claim 2 and is therefore rejected for the same reason applied to claim 2.

### ***Response to Arguments***

8. Applicant's arguments filed 12/20/04 have been fully considered but they are not persuasive.

With respect to the Nara reference, the applicants argue that Nara teaches *first transmission rate judgment means 104 and second transmission rate judgment means 108. Each of the elements 104 and 108 perform analyses on decoded data output from Viterbi decoder 102. Therefore, Nara does not teach or suggest a decoded data outputting part for selectively outputting data that correspond to a frame length detected from the input data which have not been decoded by the preliminary decoding part, as recited in claim 1.*

Examiner's response --- As shown in Fig. 4 of Nara, the second transmission rate judgment means 108 receives the signals 109-112 from element 101. The signals 109-112 have not been processed by the viterbi decoder 102. Therefore, Nara clearly teaches a frame length detected from the input data, i.e., the signal output from the element 101, which have not been decoded by the preliminary decoding part.

With respect to the rejection under 35 USC 112, second paragraph, the applicant argue that *"the frame length indicating parameter" and "a frame length parameter" represent different concepts and do not have the same purpose. More specifically, a "frame length indicating parameter" is described at page 10, lines 15-16 of the specification, and is used, for example, in step S149 of Fig. 5B. On the other hand, a "frame length parameter" is described at page 10, line 16 of the specification and is used, for example, in step S144 of Fig. 5B. Because these concepts are unrelated, Applicant submits that it is not necessary to amend the claims in response to this rejection.*

Examiner's response --- Claim 6 of the instant application recites, "a frame length indicating parameter for indicating the possible frame lengths, and frame length parameter for indicating the possible frame lengths" (emphasis added). The frame length indicating parameter and the frame length parameter, as claimed, have exactly the same purpose. On the other hand, the applicants argue and admit that the frame length indicating parameter and the frame length parameter represent different concepts and do not have the same purpose, which is opposite to the claimed limitation. Therefore, the applicants fail to particularly point out and distinctly claim the subject matter which the applicants regard as their invention. The rejection is thus maintained.

### ***Specification***

9. As described above, the applicants admit that the frame length indicating parameter and the frame length parameter represent different concepts and do not have the same purpose. However, by reading the description on page 10, lines 15-16 of the specification, "*a frame length indicating parameter (i) for indicating a possible frame length, a frame length parameter (Ei) for indicating a possible length of the frame*" alone, one cannot tell the difference between the two parameters. The applicants are suggested to revise the portion identified above for better description. However, no new matter may be added.



***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chieh M. Fan whose telephone number is (571) 272-3042. The examiner can normally be reached on Monday-Friday 8:00AM-5:30PM, Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571) 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Chieh M Fan  
Primary Examiner  
Art Unit 2634

May 21, 2005